

J

USSN: 10/563,601
U.S. National Phase of PCT/EP2004/051454
Attorney Docket: I-2003.005 US
Preliminary Amendment

Amendments to the Claims:

The following is a complete claim set with status identifiers. Please substitute the pending claims with the following claim set:

1. (currently amended) An isolated amino acid sequence comprising an amino acid sequence selected from the group consisting of: Babesia protein, characterised in that said protein comprises an amino acid sequence having a homology of at least 70% with the amino acid sequence from amino acid position 17 to position 180 in SEQ ID NO: 2;
(i) amino acids 17 to 180 of SEQ ID NO: 2,
(ii) amino acids 17 to 180 of SEQ ID NO: 4, or and
(iii) an immunogenic fragment of (i) or (ii) of said protein;
wherein said sequence provides prophylactic or therapeutic treatment of an infection or its clinical signs caused by an organism of the family Babesiidae.
2. (currently amended) The sequence Babesia protein according to claim 1, characterised in that said protein comprises an amino acid sequence having a homology of at least 70% with the amino acid sequence as depicted in comprising SEQ ID NO 2[.][.] or an immunogenic fragment thereof of said protein.
3. (currently amended) The sequence Babesia protein according to claim 1, characterised in that said protein comprises an amino acid sequence having a homology of at least 70% with the amino acid sequence as depicted in comprising SEQ ID NO 4[.][.] or an immunogenic fragment thereof of said protein.
4. (currently amended) A nucleic Nucleic acid, characterised in that [[it]] encodes the sequence protein according to claim 1, claims 1-3, or an immunogenic fragment of said protein.
5. (currently amended) The nucleic Nucleic acid according to claim 4, characterised in that it comprises comprising the nucleic acid of SEQ ID NO: 1.

USSN: 10/563,601
U.S. National Phase of PCT/EP2004/051454
Attorney Docket: 1-2003.005 US
Preliminary Amendment

6. (currently amended) The nucleic Nucleic acid according to claim 4, characterised in that it comprises comprising the nucleic acid of SEQ ID NO: 3.
7. (currently amended) A cDNA fragment comprising [[a]] the nucleic acid according to claim 4 claims 4-6.
8. (currently amended) A recombinant Recombinant DNA molecule comprising [[a]] the nucleic acid according to claim 4 claims 4-6 or a cDNA fragment according to claim 7, under the control of a functionally linked promoter.
9. (currently amended) A live Live recombinant carrier comprising [[a]] the nucleic acid according to claim 4 claims 4-6, a cDNA fragment according to claim 7 or a recombinant DNA molecule according to claim 8.
10. (currently amended) A host Host cell comprising [[a]] the nucleic acid according to claim 4 claims 4-6, a cDNA fragment according to claim 7, a recombinant DNA molecule according to claim 8 or a live recombinant carrier according to claim 9.
11. (currently amended) A vaccine Vaccine comprising
 - i) [[a]] the sequence protein according to claim 1; claims 1-3 or an immunogenic fragment of said protein, a nucleic acid according to claims 4-6, a cDNA fragment according to claim 7, a recombinant DNA molecule according to claim 8, a live recombinant carrier according to claim 9 or a host cell according to claim 10, or a combination thereof; and
 - ii) a pharmaceutically acceptable carrier.
12. (currently amended) The vaccine Vaccine according to claim 11, characterised in that it comprises further comprising an adjuvant.

USSN: 10/563,601
U.S. National Phase of PCT/EP2004/051454
Attorney Docket: I-2003.005 US
Preliminary Amendment

13. (currently amended) The vaccine Vaccine according to claim 11, claims 11-12, characterised in that it comprises further comprising an additional immunoactive component or a nucleic acid encoding said additional immunoactive component.

14. (currently amended) The vaccine Vaccine according to claim 13, characterised in that wherein said additional immunoactive component or nucleic acid encoding said additional immunoactive component is obtained from an organism selected from the group consisting of *Ehrlichia canis*, *Babesia gibsoni*, *B. vogeli*, *B. rossi*, *Leishmania donovani*-complex, Canine parvovirus, Canine distempervirus, *Leptospira interrogans* serovar *canicola*, *Leptospira interrogans* serovar *icterohaemorrhagiae*, *Leptospira interrogans* serovar *pomona*, *Leptospira interrogans* serovar *grippotyphosa*, *Leptospira interrogans* serovar *bratislava*, Canine hepatitisvirus, Canine parainfluenzavirus, rabies virus, *Hepatozoon canis* and *Borrelia burgdorferi*.

15. (currently amended) A vaccine Vaccine, characterised in that it comprises comprising

- i) an antibody against [[a]] the sequence protein according to claim 1 claims 1-3 or an antibody against an immunogenic fragment of said protein, or a combination thereof, and
- ii) a pharmaceutically acceptable carrier.

16. (currently amended) A method Method for the preparation of a vaccine according to claims 11-14, and method comprising the admixing of

- i) [[a]] the sequence protein according to claim 1, claims 1-3, or an immunogenic fragment of said protein, a nucleic acid according to claims 4-6, a cDNA fragment according to claim 7, a recombinant DNA molecule according to claim 8, a live recombinant carrier according to claim 9 or a host cell according to claim 10, or a combination thereof, and
- ii) a pharmaceutically acceptable carrier.

17. (currently amended) A method Method for the preparation of a vaccine according to claim 15, and method comprising the admixing of

USSN: 10/563,601
U.S. National Phase of PCT/EP2004/051454
Attorney Docket: I-2003.005 US
Preliminary Amendment

- i) an antibody against ~~[[a]] the sequence~~ protein according to claim 1 ~~claims 1-3 or an antibody against an immunogenic fragment of said protein and~~
ii) a pharmaceutically acceptable carrier.

18. (currently amended) ~~A method of prophylaxis or treatment Use of a protein according to claims 1-3 or an immunogenic fragment of said protein for the manufacture of a vaccine for prophylactic or therapeutic treatment of an infection or its clinical signs caused by an organism of the family Babesiidae, comprising administering a vaccine comprising the sequence according to claim 1.~~

19. (currently amended) ~~A diagnostic Diagnostic test for the detection of a nucleic acid associated with an organism of the family Babesiidae, characterised in that the test comprises comprising a nucleic acid sequence selected from the group consisting of:~~

- (i) a nucleic acid, said nucleic acid being at least 70 % homologous to the nucleic acid sequence depicted in SEQ ID NO: 1 ~~[[or 3, or]]~~;
- (ii) a fragment of SEQ ID NO: 1 at least 12 nucleotides long;
- (iii) SEQ ID NO: 3;
- (iv) a fragment of SEQ ID NO: 3 at least 12 nucleotides long; and
- (v) a nucleic acid that is complementary to any of (i) through (iv) said nucleic acid, wherein either of the nucleic acids have a length of at least 12, preferably 15, more preferably 18 nucleotides.

20. (currently amended) ~~A diagnostic Diagnostic test for the detection of antibodies against an organism of the family Babesiidae, characterised in that said test comprises a protein comprising the sequence according to claim 1 ~~claims 1-3, or an immunogenic fragment of said protein, or a combination thereof.~~~~

21. (currently amended) ~~A diagnostic Diagnostic test for the detection of antigenic material from an organism of the family Babesiidae, characterised in that said test comprises comprising an~~

FEB-14-2006 12:27 From:

To:USPTO

P.7/10

USSN: 10/563,601
U.S. National Phase of PCT/EP2004/051454
Attorney Docket: I-2003.005 US
Preliminary Amendment

antibody against a protein the sequence according to claim 1 claims 1-3 or an antibody against an immunogenic fragment of said protein, or a combination thereof.